

**SOUTHWEST FISHERIES SCIENCE CENTER**  
**FOURTH QUARTER REPORT - FY 2004**  
For the Period July 1 - September 30

**Submitted by:** Roger Hewitt, Division Director, Fisheries Resources Division

**Title of accomplishment of milestone:** Survey of white abalone populations off San Clemente Island and Tanner Bank.

**Current status:** Ongoing.

**Background information:** The white abalone, *Haliotis sorenseni*, was listed as an endangered species in May 2001 based on the status review that indicated that less than 2,600 white abalone remained in the wild. Surveys have been conducted for the past three years to map habitat and to determine population size. The first survey mapped critical habitat at San Clemente Island and estimated population size at this important locality. Historical landings indicated that 80% of all landings in the United States were from San Clemente Island. The second survey revisited Tanner Bank to monitor the status of white abalone at that location.

**Purpose of Activity:** To determine the abundance of white abalone in the United States EEZ and to monitor populations for signs of recovery or continuing decline.

**Description of accomplishment and significant results:**

Cruise 1: Eighteen ROV dives were conducted for a total of 26 hours of survey time completed during seven working days of ship time (10 days total, Fig. 1). Two days were used to transit to San Clemente Island, and one was lost due to naval activities in the survey area. Six white abalone were found (Fig. 2). The bathymetry of the entire southwestern side of San Clemente Island was mapped for future surveys.

Cruise 2: Forty abalone sightings were made on 24 randomly selected transect lines. Data from the cruise is being analyzed to confirm species identification and calibrate the area searched during each transect prior to making density estimates. A survey of Tanner Bank in 2002 found 198 white abalone. Data will be further analyzed to determine whether this represents a decline or is within the confidence intervals of the survey.

**Significance of accomplishment:** More than 4,000 hectares of habitat were mapped at San Clemente Island using multi-beam sonar. Further analysis is needed to define abalone habitat and population estimates.

**Problems:**

Cruise 1: Two days were used to transit to San Clemente Island, and one was lost due to naval activities in the survey area.

Cruise 2: Two days were used to transit to Tanner Bank, and one day was lost due to weather.

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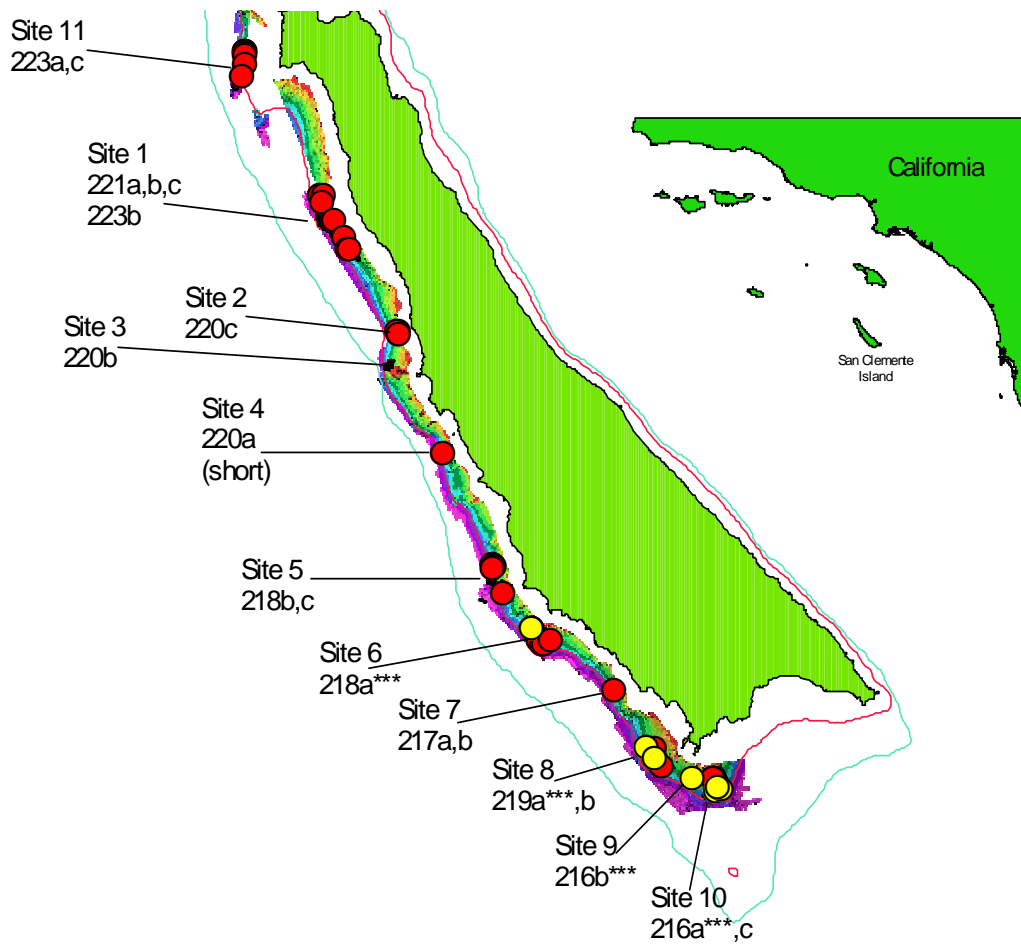


Figure 1. White abalone survey area off of San Clemente Island. The ROV tracks, abalone locations, and bathymetry are shown.

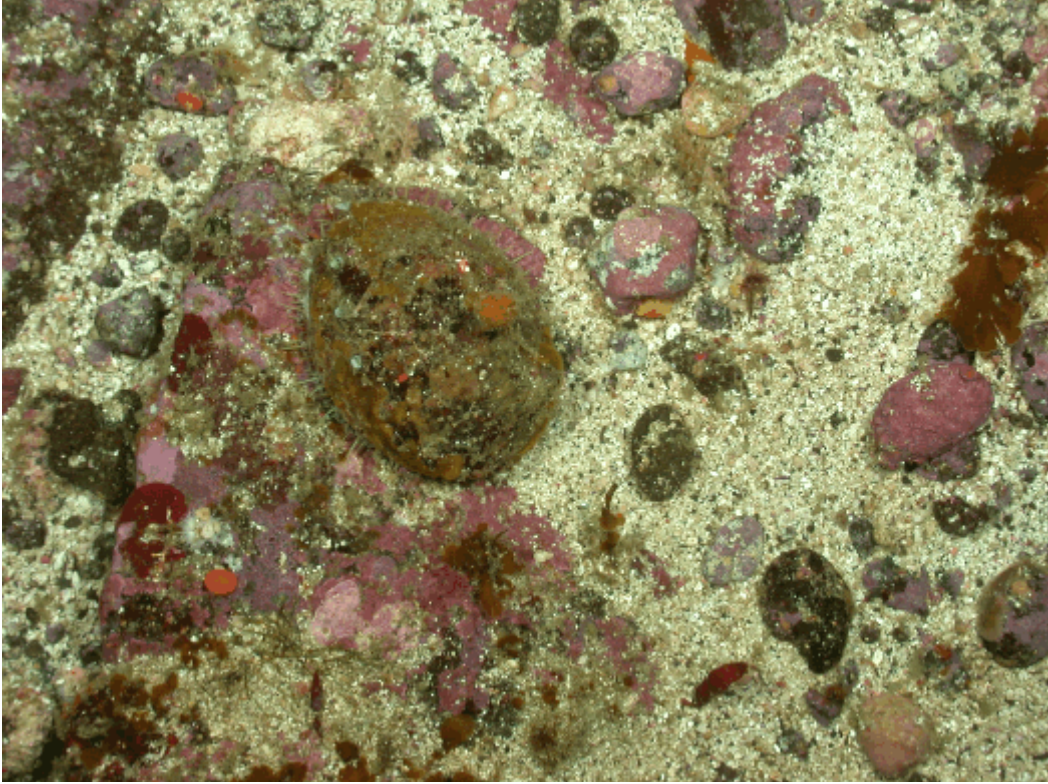


Figure 2. A white abalone found during the recent survey at San Clemente Island. Photo taken with ROV.